

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**



For

MAINPOWER NEW ZEALAND LIMITED

Prepared by: Steve Woods, Veritek Limited

Date audit commenced: 6 June 2018

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EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Mainpower New Zealand Limited (Mainpower)**, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at the Mainpower's premises in Rangiora, on June 6th, 2018.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

The audit found eight non-compliances and makes two recommendations.

Most of the issues raised relate to incorrect or late registry updates.

The two most critical issues from the previous audit were the incorrect recording of the dedicated status and GXP inaccuracy. The dedicated flag issue is now resolved but further work is required to ensure GXPs are accurately recorded. Most of the other issues identified can be remedied by improving the controls, specifically with discrepancy reporting to identify potential errors in a shorter timeframe. The implementation of a new system will eliminate manual registry updates and will provide the required validation reporting.

The next audit frequency table indicates that the next audit be due in 12 months. This timeframe seems reasonable given the low breach risk ratings for most issues and that many of the items raised have been resolved.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of information	2.1	11.2(1)	All practicable steps not taken to ensure information accuracy, as recorded in sections 3.5, 4.2, 4.6 and 4.11.	Moderate	Low	2	Cleared
ICP creation	3.2	11.5(3)	3 of 20 ICPs created one day or two days late.	Strong	Low	1	Identified
Initial electrical connection date population	3.5	7(2A) of Schedule 11.1	37 initial energisation dates updated late to the registry. 36 incorrect event dates.	Moderate	Low	2	Cleared
Changes to registry information	4.1	8 Schedule 11.1	Some late registry updates.	Moderate	Low	2	Identified
Notice of NSP	4.2	7(1),(4) and	Incorrect GXP	Moderate	Low	2	Cleared

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
		(5) Schedule 11.1	recorded for 7 ICPs.				
ICP location address	4.4	2 Schedule 11.1	One ICP without sufficient detail to locate.	Strong	Low	1	Cleared
Registry accuracy	4.6	7(1)(o) & (p) Schedule 11.1	One DG and several IECD discrepancies found.	Moderate	Low	2	Cleared
Decommissioned status	4.11	20 Schedule 11.1	At least three ICPs decommissioned without the registry being updated.	Weak	Low	3	Cleared
Future Risk Rating						15	
Indicative Next Audit Frequency						12 months	

Future risk rating	0-1	2-5	6-8	9-20	21-29	30+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Recommendation	Description
Notice of NSP	4.2	Regarding clauses 7(1),(4) and (5) Schedule 11.1	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.
Shared unmetered load	7.1	Regarding Clause 11.14(2) and (4)	Populate the shared ICP list field for child ICPs with the parent ICP identifier.

ISSUES

Subject	Section	Issue	Description
		Nil	

1. ADMINISTRATIVE

1.1. Exemptions from Obligations to Comply with Code (Section 11)

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

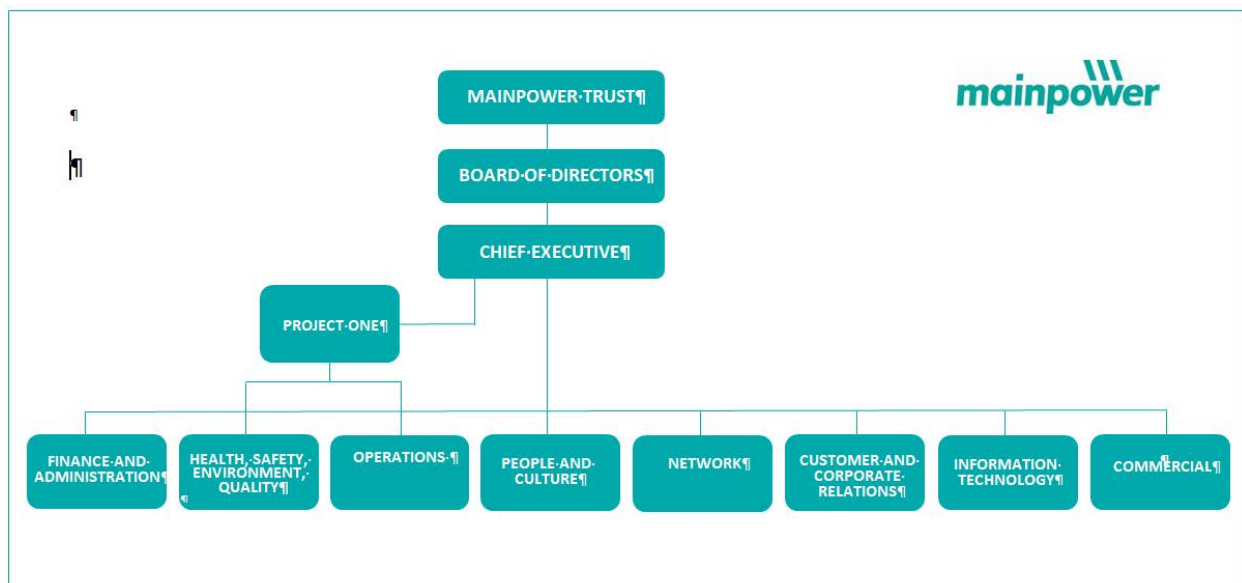
Audit observation

The Authority website was checked to determine whether there are code exemptions in place.

Audit commentary

Review of exemptions on the Authority website confirmed that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation



1.3. Persons involved in this audit

Auditor:

Steve Woods

Veritek Limited

Electricity Authority Approved Auditor

Mainpower Networks personnel assisting in this audit were:

Name	Title
Sarah Barnes	Regulatory Manager
Leigh Hancock	Commercial Administrator
Joel Hung	Commercial Analyst

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the contractor's fulfilment of the participants Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to the action of a contractor*
- *must ensure that the contractor has at least the specified level of skill, expertise, experience, or qualification that the participant would be required to have if it were performing the obligation itself.*

Audit observation

All activities are completed directly by Mainpower.

1.5. Supplier list

All activities are completed directly by Mainpower.

1.6. Hardware and Software

Mainpower is in the process of implementing Salesforce for registry management functions.

Mainpower currently uses a bespoke system to manage processes and data related to the scope of this audit. The registry is still being updated manually until the Salesforce project is complete.

Back-ups are carried out in accordance with industry standards.

1.7. Breaches or Breach Allegations

One “self breach” was recorded during the audit period. The details of the breach are as follows:

On April 15 2018 254 ICPs at Amberley North Canterbury were transferred from the Waipara GXP to the Ashley GXP by MainPower New Zealand Limited in order to mitigate the effects of a problem at the Amberley substation caused by failure of a transformer. The ICPs were transferred back to the Waipara GXP on May 7th – a period of 24 days. Under clause 7(1)(b) of schedule 11.1 of the EIPC MainPower is required to update the Registry if an ICP is connected to a different ICP for longer than 14 days. MainPower had 8 days to update the Registry after day 14, this did not occur. The ICPs were transferred back to the Waipara GXP (the normal GXP) on the 8th day after the obligation to notify arose.

Mainpower resolved this matter on June 15th by loading the correct GXP information for the correct period to the registry.

1.8. ICP and NSP Data

Mainpower owns and operates the electricity network in the North Canterbury region.

The table below lists the relevant NSPs and their associated balancing area, and the number of active ICPs connected.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
MPOW	ASY0111	ASHLEY			ASYAREAMPOWG	G	01-10-16
MPOW	CUL0331	CULVERDEN			SWCKMPOWG	G	01-08-16
MPOW	CUL0661	CULVERDEN			SWCKMPOWG	G	01-08-16
MPOW	KAI0111	KAIAPOI			KAI0111MPOWG	G	01-05-08
MPOW	SBK0331	SOUTHBROOK			SWCKMPOWG	G	01-05-08
MPOW	SBK0661	SOUTHBROOK			KAI0111MPOWG	G	01-10-16
MPOW	WPR0331	WAIPARA			SWCKMPOWG	G	01-08-16
MPOW	WPR0661	WAIPARA			SWCKMPOWG	G	01-01-16

Mainpower does not own any embedded networks and there are no embedded networks connected.

The following ICP information is from a May 2018 list file.

Status	Number of ICPs
Active (2,0)	39,252
Inactive – new connection in progress (1,12)	42
Inactive – electrically disconnected vacant property (1,4)	805
Inactive – electrically disconnected remotely by AMI meter (1,7)	62
Inactive – electrically disconnected at pole fuse (1,8)	23

Status	Number of ICPs
Inactive – electrically disconnected due to meter disconnected (1,9)	8
Inactive – electrically disconnected at meter box fuse (1,10)	1
Inactive – electrically disconnected at meter box switch (1,11)	1
Inactive – electrically disconnected ready for decommissioning (1,6)	170
Inactive – reconciled elsewhere (1,5)	0
Decommissioned (3)	3,663

1.9. Authorisation Received

An authorisation letter was not required.

1.10. Scope of Audit

This Distributor audit was performed at the request of Mainpower, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at the Mainpower's premises in Rangiora, on June 6th, 2018.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

The table below shows the tasks under clause 11.10(4) of Part 11, which Mainpower is responsible for. There are no other contractors who assist with these tasks:

Functions Requiring Audit Under Clause 11.10(4) of Part 11	Within audit scope	Contractors Involved in Performance of Tasks
The creation of ICP identifiers for ICPs.	✓	Nil
The provision of ICP information to the registry and the maintenance of that information.	✓	
The creation and maintenance of loss factors.	✓	

1.11. Summary of previous audit

Mainpower provided a copy of their previous audit, conducted in September 2017 by Paul Troon. The audit found six non-compliances and made no recommendations. The matters raised are detailed in the table below.

Table of non-compliance

Subject	Section	Clause	Non-compliance	Status
Complete and accurate information	2.1	11.2(1)	Incorrect NSP and dedicated status information.	Some incorrect NSPs found but these have been corrected
Initial energisation date.	3.5	7(2A) of schedule 11.1	The participant did not provide the initial energisation date for 34 new ICPs within the required time.	Still existing
Maintenance of registry information	4.1	8 of schedule 11.1	Registry information not updated with 3 business days.	Still existing
NSP for ICP allocation	4.2	Clauses 7(1),(4) and (5) of schedule 11.1	Incorrect allocation of NSP to ICP.	Cleared
Address information	4.4	Clause 2 of schedule 11.1	Addresses that do not facilitate ready location of ICP.	One ICP identified, which has now been updated
Maintain registry information	4.6	Clause 7 (1) of schedule 11.1	Incorrect ICP dedicated status.	Cleared

2. OPERATIONAL INFRASTRUCTURE

2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))

Code reference

Clause 11.2(1) and 10.6(1)

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Parts 10 or 11 is:

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

Audit observation

I considered the issues reported in the body of this report to determine whether all practicable steps have been taken with regard to the provision of complete and accurate information.

Audit commentary

In **sections 3.5, 4.2, 4.6** and **4.11** I have recorded that additional steps can be taken to improve the accuracy of information. The relevant details are recorded in each of these sections.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: Clause 11.2(1) From: 01-Sep-17 To: 30-Apr-18	All practicable steps not taken to ensure information accuracy, as recorded in sections 3.5, 4.2, 4.6 and 4.11. Potential impact: Medium Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as moderate in three of the sections and weak for the management of the decommissioned status. In summary Mainpower's controls ensure information is accurate most of the time but improvements have been identified, therefore I have recorded the controls as moderate. Several of the matters raised have a minor impact on settlement or other participants, leading to an audit risk rating of low.

Actions taken to resolve the issue	Completion date	Remedial action status
We have decommissioned 156 of the ICPs identified as being at "ready for decommissioning". We have sent information requests for the remaining 14 to the relevant retailers.	14 June 2018	Cleared
Preventative actions taken to ensure no further issues will occur	Completion date	
We will incorporate regular reporting from the new system to monitor ICPs at ready for decommissioning into our monthly checks.]	Q3 2018	

2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))

Code reference

Clause 11.2(2) and 10.6(2)

Code related audit information

If the participant becomes aware that in providing information under this Part, the participant has not complied with that obligation, the participant must, as soon as practicable, provide such further information as is necessary to ensure that the participant does comply.

Audit observation

I checked Mainpower's validation processes and the resolution of issues found during the previous audit to confirm compliance.

Audit commentary

Mainpower has taken action with regard to the issues from the previous audit and they have taken immediate action to resolve any errors found during this audit. I therefore confirm compliance.

Audit outcome

Compliant

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

The distributor must create an ICP identifier in accordance with Clause 1 of Schedule 11.1 for each ICP on the distributor's network. This includes an ICP identifier for the point of connection at which an embedded network connects to the distributor's network.

Audit observation

The new connection process was examined in detail and is described in **section 3.2**. A diverse characteristics sample of 20 new connection applications of the 555 created since September 2017 were checked from the point of application through to when the ICPs were created. The sample included ICPs with unmetered load, CT metering, distributed generation and connected to different NSPs.

Audit commentary

Mainpower creates ICPs as required by clause 1 of schedule 11.1.

There were no examples found of points of connection without ICPs.

Audit outcome

Compliant

3.2. Participants may request distributors to create ICPs (Clause 11.5(3))

Code reference

Clause 11.5(3)

Code related audit information

The distributor, within three business days of receiving a request for the creation of an ICP identifier for an ICP, must either create a new ICP identifier or advise the participant of the reasons it is unable to comply with the request.

Audit observation

As recorded in **Section 3.1**, I checked the records for 20 ICPs created during the audit period to confirm compliance with this clause.

Audit commentary

New connection requests are made directly to Mainpower by the customer or more commonly their electrician. Requests are made on-line or sometimes by completing a hard copy form. The application is then subject to an engineering review (to confirm capacity and other technical issues) and then the approval is sent to another department for registry population where the ICP is created on the registry at "New". At this time the relevant retailer is asked for confirmation that they agree to take responsibility for the ICP. Once this confirmation is returned the status is changed to "Ready".

Whilst this clause discusses ICP applications by participants, I have determined that the customer or their electrician is acting as an agent for the participant and I have therefore measured the "3 day" requirement from the application by the customer to the creation of the ICP at "New".

17 of 20 ICPs were created within three business days, but three were created later than three days. Two were created on the fourth day and one on the fifth day. Whilst these timeframes did not have any impact on the relevant participants, non-compliance still exists for not meeting the three day requirement and not notifying the applicant or the participant.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.2 With: Clause 11.5(3) From: 01-Sep-17 To: 30-Apr-18	3 of 20 ICPs created one day or two days late. Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because for two ICPs there were genuine reasons the ICPs could not be created immediately (awaiting confirmation that transformers were installed) and for the other ICP the issue related to the number of personnel trained on how to create ICPs. This last matter is now resolved. There is no impact on settlement. The only potential impact is where a trader may wish to compare their Active date to the IED, so the impact is considered minor, leading to an audit risk rating of low.		
Actions taken to resolve the issue		Completion date	Remedial action status
MainPower has reminded staff of the 3 day requirement.		19 June 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Applications for new connections are date stamped when they are received. We will monitor times for creation of ICPs and take action eg training of new staff as required.		19 June 2018	

3.3. Provision of ICP Information to the registry manager (Clause 11.7)

Code reference

Clause 11.7

Code related audit information

The distributor must provide information about ICPs on its network in accordance with Schedule 11.1.

Audit observation

A diverse characteristics sample of 20 new connection applications of the 555 created since September 2017 were checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice.

Audit commentary

ICP information provided to the registry by Mainpower was correct. Registry population is currently manual but will be automated out of Salesforce when this project is complete.

Audit outcome

Compliant

3.4. Timeliness of Provision of ICP Information to the registry manager (Clause 7(2) of Schedule 11.1)

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

The distributor must provide information specified in Clauses 7(1)(a) to 7(1)(o) of Schedule 11.1 as soon as practicable and prior to electricity being traded at the ICP.

Audit observation

An event detail report was examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP.

555 new ICPs have been created since September 2017. I reviewed these new connections on the event detail report to identify ICPs where information was provided late. There were no examples of the registry being updated after electrical connection, or after trading had commenced.

Audit outcome

Compliant

3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

The distributor must provide the information specified in sub-clause (1)(p) to the registry manager no later than 10 business days after the date on which the ICP is initially electrically connected.

Audit observation

The event detail report and the registry list were examined to determine the timeliness and accuracy of initial electrical connection dates for the 555 completed new connections.

Audit commentary

The analysis of the event detail report found 37 updates later than 10 business days.

10 of the 37 late updates were checked in detail, with the following findings:

1. two were due to late updates from the field
2. two were due to dates being re-entered after they were inadvertently removed during a bulk upload of other information in late 2017
3. two were due to the office closure over the Xmas New Year period
4. four were due to processing issues leading to some records not printing and therefore not being actioned.

As a result of these findings, Mainpower has introduced an additional control, where they will report on any "Active" ICPs without an initial electrical connection date. This measure will assist with points 1, 2 and 4 above, but a different solution will be required for point 3.

In addition, the event date was incorrect for 36 of the 37 updates. The event date should be the same date as the initial electrical connection date. The data dictionary in the registry defines the event date as follows:

The Event Date defines the date from which the attribute values of the event should apply.

Therefore, the event date should be the same date as the initial electrical connection date. As a result of this finding, Mainpower will now change the event date to match the IECD.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 01-Sep-17 To: 30-Apr-18	37 initial energisation dates updated late to the registry. 36 incorrect event dates. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate at the time of the completion of the audit due to the additional reporting and process measures put in place. There is no impact on settlement. The only potential impact is where a trader may wish to compare their Active date to the IECD, so the impact is considered minor, leading to an audit risk rating of low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have corrected the errors identified at the time of the audit. We have reminded our livening agent of the Code requirements.		14 June 2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will produce a monthly report to report Active ICPs without an initial energization date. We will review practices around Christmas shutdowns and new connections during this time with our livening agents.		Q3 2018	

3.6. Connection of ICP that is not an NSP (Clause 11.17)

Code reference

Clause 11.17

Code related audit information

A distributor must, when connecting an ICP that is not an NSP, follow the connection process set out in Clause 10.31.

The distributor must not connect an ICP (except for an ICP across which unmetered load is shared) unless a trader is recorded in the registry as accepting responsibility for the ICP.

In respect of ICPs across which unmetered load is shared, the distributor must not connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load.

Audit observation

The new connection process was examined in **section 3.2**.

The event detail file and registry list were examined to determine compliance.

Audit commentary

The new connection process requires applications for new connections to be approved by traders before moving from the New status to the Ready status.

My review of the registry list confirmed that a trader is currently recorded for all active ICPs. No ICPs were connected or electrically connected without a proposed trader.

Audit outcome

Compliant

3.7. Connection of ICP that is not an NSP (Clause 10.31)

Code reference

Clause 10.31

Code related audit information

A distributor must not connect an ICP that is not an NSP unless requested to do so by the trader trading at the ICP.

Audit observation

The new connection process was examined in **section 3.2**. The event detail report for the period from September 2017 through to April 2018 was examined.

Audit commentary

The new connection process allows applications for new connections to be submitted by customers or their agents.

As discussed in **Section 3.2**, Manpower has a step in the new connections process to ensure a trader accepts responsibility and is recorded in the registry. There are no ICPs without a proposed trader recorded in the registry.

Audit outcome

Compliant

3.8. Temporary electrical connection of ICP that is not an NSP (Clause 10.31A)

Code reference

Clause 10.31A

Code related audit information

A distributor may only temporarily electrically connect an ICP that is not an NSP if requested by an MEP for a purpose set out in clause 10.31A(2), and the MEP:

- *has been authorised to make the request by the trader responsible for the ICP; and*
- *the MEP has an arrangement with that trader to provide metering services.*

Audit observation

The new connection process was examined in **section 3.2**. The event detail file and registry list were examined to determine compliance.

Audit commentary

Mainpower's processes are robust in relation to this clause as an ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP. No temporarily connected ICPs were identified.

Audit outcome

Compliant

3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)

Code reference

Clause 10.30

Code related audit information

A distributor must not connect an NSP on its network that is not a point of connection to the grid unless requested to do so by the reconciliation participant responsible for ensuring there is a metering installation for the point of connection.

The distributor must, within five business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:

- *the NSP that has been connected*
- *the date of the connection*
- *the participant identifier of the MEP for each metering installation for the NSP*
- *the certification expiry date of each metering installation for the NSP.*

Audit observation

The NSP table was reviewed.

Audit commentary

No new NSPs were created by Mainpower during the audit period.

Audit outcome

Compliant

3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))

Code reference

Clause 10.30(A)

Code related audit information

A distributor may only temporarily electrically connect an NSP that is not a point of connection to the grid if requested by an MEP for a purpose set out in clause 10.30A(3), and the MEP:

- *has been authorised to make the request by the reconciliation participant responsible for the NSP; and*
- *the MEP has an arrangement with that reconciliation participant to provide metering services.*

Audit observation

The NSP table was reviewed.

Audit commentary

No new NSPs were created by Mainpower during the audit period.

Audit outcome

Compliant

3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

Each ICP created by the distributor in accordance with Clause 11.4 must have a unique identifier, called the “ICP identifier”, determined in accordance with the following format:

xxxxxxxxxxccc where:

- xxxxxxxxxx is a numerical sequence provided by the distributor*
- xx is a code that ensures the ICP is unique (assigned by the Authority to the issuing distributor)*
- ccc is a checksum generated according to the algorithm provided by the Authority.*

Audit observation

The process for the creation of ICPs was examined.

Audit commentary

ICP numbers are created in the appropriate format.

Audit outcome

Compliant

3.12. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

Each ICP must have a single loss category that is referenced to identify the associated loss factors.

Audit observation

The list file was examined to confirm all active ICPs have a single loss category code.

Audit commentary

Each active ICP has a single loss category, which clearly identifies the relevant loss factor.

Audit outcome

Compliant

3.13. Management of “new” status (Clause 13 Schedule 11.1)

Code reference

Clause 13 Schedule 11.1

Code related audit information

The ICP status of “New” must be managed by the distributor to indicate:

- *the associated electrical installations are in the construction phase (Clause 13(a) of Schedule 11.1)*
- *the ICP is not ready for activation (Clause 13(b) of Schedule 11.1).*

Audit observation

The ICP creation process was reviewed. The event detail file and registry list were examined to determine compliance.

Audit commentary

Mainpower creates ICPs at the “New” status and changes the status to “Ready” once the relevant retailer has agreed to accept responsibility for the ICP. The “New” status is correctly used.

Audit outcome

Compliant

3.14. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)

Code reference

Clause 15 Schedule 11.1

Code related audit information

If an ICP has had the status of “New” or has had the status of “Ready” for 24 months or more:

- *the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1)*
- *the distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1).*

Audit observation

The ICP creation process was reviewed. The event detail file and registry list were examined to determine compliance.

Audit commentary

The list file contains 14 “Ready” and four “New” ICPs created more than 24 months ago. I checked the process for notifying traders and it is compliant. On a monthly basis Mainpower sends a list to retailers with their ICPs and requests confirmation that they still want to retain the ICP in its current status. The reporting and responses were demonstrated.

Audit outcome

Compliant

3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

If the ICP connects the distributor's network to an embedded generating station that has a capacity of 10 MW or more (clause 7(1)(f) of Schedule 11.1):

- *The loss category code must be unique; and*
- *The distributor must provide the following to the reconciliation manager:*

- *the unique loss category code assigned to the ICP*
- *the ICP identifier of the ICP*
- *the NSP identifier of the NSP to which the ICP is connected*
- *the plant name of the embedded generating station.*

Audit observation

The list file was examined to identify relevant ICPs.

Audit commentary

There are no ICPs with a generation capacity greater than 10MW. There is one ICP with an individual loss category, but it is rated at 2MW not more than 10MW.

Audit outcome

Compliant

4. MAINTENANCE OF REGISTRY INFORMATION

4.1. Changes to registry information (Clause 8 Schedule 11.1)

Code reference

Clause 8 Schedule 11.1

Code related audit information

If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must give written notice to the registry manager of that change.

Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).

In those cases, notification must be given no later than eight business days after the change takes effect.

If the change to the NSP identifier is for more than 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.

Audit observation

The management of registry updates was reviewed.

The event detail file from September 2017 to April 2018 was reviewed to determine compliance. An extreme case sample of 10 backdated events (or less if there were not more than ten) by type were reviewed to determine the reasons for the late updates. This included address, network, NSP change, pricing, and status events.

Audit commentary

When information that is held by the registry changes, the distributor responsible for that ICP must provide notice to the registry of that change within three business days of that change taking effect. The event detail reports were examined to identify backdated event updates.

Address events

2,402 address updates were identified. 84 of these were updated greater than three business days of the event.

Network events

437 network events not relating to population of initial electrical connection dates for new connections completed during the audit period were identified. The timeliness of initial electrical connection updates is discussed in **section 3.5**.

81 of these were updated more than three business days after the event. I checked a sample of 10 late updates and found the following:

1. four were due to late updates from the field
2. three were due to dates being re-entered after they were inadvertently removed during a bulk upload of other information in late 2017
3. three were due to processing issues leading to some records not printing and therefore not being actioned.

Pricing events

1,287 pricing updates were identified, excluding those related to new connections. 75 of these were updated more than three business days after the event. The ten latest updates were reviewed and I found:

1. two were due to the re-population of data inadvertently removed during a bulk upload in late 2017
2. four were due to processing issues leading to some records not printing and therefore not being actioned
3. three were due to late or incorrect information from the field
4. one had an incorrect event date.

Status events

100 status updates to decommissioned were identified and 99 of these were over three business days. Often there is a delay in retailers updating their status to “ready for decommissioning” but Mainpower’s monitoring process is not run every day so the retailers’ status changes are not identified immediately. Mainpower intends to implement better reporting in Salesforce for this event.

The backdating of events to the registry is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 01-Sep-17 To: 30-Apr-18	Some late registry updates. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
The issues identified in the audit have been addressed		14 June 2018	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will work with the IT department to develop a report to allow us to monitor change in status to ready for decommissioning. We will remind our living agent of the requirement to provide information in a timely fashion.		Q3 2018	

4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)

Code reference

Clauses 7(1), 7(4) and 7(5) Schedule 11.1

Code related audit information

Under Clause 7(1)(b) of Schedule 11.1, the distributor must provide to the registry manager the NSP identifier of the NSP to which the ICP is usually connected.

If the distributor cannot identify the NSP that an ICP is connected to, the distributor must nominate the NSP that the distributor thinks is most likely to be connected to the ICP, taking into account the flow of electricity within its network, and the ICP is deemed to be connected to the nominated NSP.

Audit observation

The process to determine the correct NSP was examined. The registry list and event detail report were reviewed to determine compliance.

Audit commentary

New connections have a check against surrounding ICPs and a check of the transformer to ensure the correct GXP is used. This process appears sound but I suggest periodic reporting of ICPs per transformer to ensure they all have the same GXP.

Recommendation	Description	Audited party comment	Remedial action
Regarding clauses 7(1),(4) and (5) Schedule 11.1	Develop reporting of ICPs per transformer, including GXP to ensure all GXPs are correct.	MainPower provided a report during the audit of ICPs per GXP. A second report will be developed that will enable regular monitoring of connectivity by Q3 2018.	Identified

I conducted further analysis to check GXP accuracy. The registry list was reviewed to determine whether all active ICPs with the same physical address street, suburb, and town combination had the same GXP recorded. I found 36 rows where there were up to three ICPs on a different combination to 50% or more other ICPs. Further analysis by Mainpower confirmed that six rows (7 ICPs in total) appear to have the incorrect GXP. One of these was a new connection in late 2017 and the others were all historic.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.2 With: Clauses 7(1),(4) and (5) Schedule 11.1 From: 01-Sep-17 To: 30-Apr-18	Incorrect GXP recorded for 7 ICPs. Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are recorded as moderate because Mainpower has introduced reporting to identify ICPs against incorrect GXPs. Staff are now aware of their reporting requirements when the GXP for ICPs changes.</p> <p>The impact on settlement and participants is minor for the small number of discrepancies identified; therefore, the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
All issues identified during the audit have been resolved		June 14 2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A report will be developed that will show connectivity of ICPs to Transformers and GXPs and enable regular monitoring of connectivity by Q3 2018.</p> <p>Control room procedures will also be update to reflect requirement to notify changes.</p>		Q3 2018	

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

The distributor must advise a customer (or any person authorised by the customer) or embedded generator of the customer or embedded generator's ICP identifier within three business days after receiving a request for that information.

Audit observation

The management of customer queries was examined.

Audit commentary

Mainpower seldom receives direct requests for ICP identifiers. ICP identifiers can be provided immediately on request once the address has been confirmed.

Audit outcome

Compliant

4.4. ICP location address (Clause 2 Schedule 11.1)

Code reference

Clause 2 Schedule 11.1

Code related audit information

Each ICP identifier must have a location address that allows the ICP to be readily located.

Audit observation

The process to determine correct and unique addresses was examined.

I checked the list file for addresses without sufficient information.

Audit commentary

The list file contains 26 ICPs without GPS co-ordinates. Of those 26, three do not have a street number but do have a property name. ICP 0000352000MP2CC is recorded as Omihi Road, along with 102 other ICPs, but has no other location information. Mainpower updated the address details in the registry during the audit and there is now a street number and property description. The new connection process contains a step to ensure sufficient address information is provided at the time of data entry.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.4 With: Clause 2 Schedule 11.1 From: 01-Sep-17 To: 30-Apr-18	One ICP without sufficient detail to locate. Potential impact: Low Actual impact: Low Audit history: Once Controls: Strong Breach risk rating:		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as strong and only one ICP is non-compliant. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Issues identified during the audit have been resolved		June 14 2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
A step has been introduced into the new connection process to ensure that address information is complete.		June 18 2018	

4.5. Electrically disconnecting an ICP (Clause 3 Schedule 11.1)

Code reference

Clause 3 Schedule 11.1

Code related audit information

Each ICP created after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP, except for ICPs that are the point of connection between a network and an embedded network, or ICPs that represent the consumption calculated by the difference between the total consumption for the embedded network and all other ICPs on the embedded network.

Audit observation

I checked Mainpower's "Network Connection Standards" to assess compliance.

Audit commentary

Section 2.3.6 of the Network Connection Standard contains the following statement:

"Connection for entry to and exit from the Network shall incorporate a means of disconnection of the User Network by MainPower."

I have therefore concluded that Mainpower has a compliant policy. Further to this, the new connection notification forms have fields for "tail connection type" and capacity, which would alert to any shared service mains without individual isolation.

Audit outcome

Compliant

4.6. Distributors to Provide ICP Information to the Registry manager (Clause 7(1) of Schedule 11.1)

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

For each ICP on the distributor's network, the distributor must provide the following information to the registry manager:

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
 - a) *the unique loss category code assigned to the ICP*
 - b) *the ICP identifier of the ICP*
 - c) *the NSP identifier of the NSP to which the ICP is connected*
 - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*
- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
 - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
 - b) *a blank chargeable capacity if the capacity value can be determined from metering information*
 - c) *the actual chargeable capacity of the ICP in any other case*

- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
 - a) the nameplate capacity of the generator; and*
 - b) the fuel type*
- *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The registry list and event detail reports were reviewed to determine compliance.

A typical sample of data discrepancies were checked.

Audit commentary

Registry data validation processes are discussed in **section 2.1**.

Price and loss categories

Analysis of the list file found all active ICPs had a price category and loss category assigned.

Generation

Mainpower requires an application from any customers wanting to connect distributed generation. Once installed, Mainpower receive paperwork back from the field and the database is then updated. As noted in **section 4.1**, paperwork can be slow in being returned.

Analysis of the registry list confirmed there are 702 ICPs with generation capacity recorded. All ICPs with generation capacity have a fuel type and installation type of "B" or "G" recorded on the registry.

There is one ICP with an EG1 profile but without generation capacity recorded by Mainpower. The ICP is 0000312994MPEBD and the profile was added by the retailer because they had a "reverse power" event from the AMI meter, indicating generation may be present. Mainpower has not had an application for the connection of generation. A letter was sent to the customer on 14/06/18 requesting an application and outlining the process to be followed.

There are 31 ICPs where Mainpower had generation recorded but the trader does not have the PV1 profile recorded. These were all checked and it was found that 30 of the 31 had generation installed. One ICP had generation incorrectly identified and this is now rectified.

Unmetered load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry "if known". I checked one unmetered load ICP created during the audit period and the registry is correctly populated.

Initial Electrical Connection date

50 ICPs in the list file have a blank initial electrical connection date. 38 had the IECD removed by a bulk upload of data in late 2017. Eight had the IECD missing from the field notification. Four were processed late and now have the correct date entered. As a result of these findings, Mainpower has introduced reporting of Active ICP without an IECD populated. 42 of the 50 were corrected during the audit. Additional information has been requested from the livening agent for the remaining eight ICPs.

I also checked the accuracy of IECDs and found ten ICPs where the IECD was different to either the Active or certification dates. Further analysis showed that Mainpower was correct in five cases and incorrect in five cases. It appears that confusing information from the field caused the discrepancies. Reporting from Salesforce will include a comparison between these dates to identify errors earlier.

The dedicated field was identified as incorrect during the previous audit. As a result of this finding, Mainpower changed all ICPs to non-dedicated. GXP ASY0111 is in its own balancing area and the ICPs could be recorded as dedicated, but the Authority has determined that in this situation either dedicated or non-dedicated can be used.

No other incorrect registry fields were identified.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.6 With: Clause 7(1)(o) & (p) Schedule 11.1 From: 01-Sep-17 To: 31-Mar-18	One DG and several IECD discrepancies found. Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because newly introduced reports will ensure risk is mitigated most of the time, although some improvements are still required. The audit risk rating is recorded as low because the overall number of variances is low and the impact is negligible.		
Actions taken to resolve the issue		Completion date	Remedial action status
The inaccuracies identified at the time of the audit have been corrected. The issues surrounding dedicated status have been resolved.		14 June 2018	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	

<p>We will work with our living agent to ensure that accurate IED information is received in a timely fashion.</p> <p>Regular reporting from Salesforce will address issues around distributed generation information. These checks are currently performed monthly but will be performed more frequently.</p>	Q3 2018	
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4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

Code reference

Clause 7(3) Schedule 11.1

Code related audit information

The distributor must provide the following information to the registry manager no later than 10 business days after the trading of electricity at the ICP commences:

- *the actual price category code assigned to the ICP (Clause 7(3)(a) of Schedule 11.1)*
- *the actual chargeable capacity of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(b) of Schedule 11.1)*
- *the actual distributor installation details of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(c) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The event detail report and registry list were reviewed to determine compliance.

Audit commentary

I checked the registry update timeframes for all new connections and did not find any late updates in relation to this clause.

Audit outcome

Compliant

4.8. GPS coordinates (Clause 7(8) and (9) Schedule 11.1)

Code reference

Clause 7(8) and (9) Schedule 11.1

Code related audit information

If a distributor populates the GPS coordinates (optional), it must meet the NZTM2000 standard in a format specified by the Authority.

Audit observation

I checked the format of GPS coordinates in the registry.

Audit commentary

GPS coordinates are populated in the registry and they are in NZTM format.

Audit outcome

Compliant

4.9. Management of “ready” status (Clause 14 Schedule 11.1)

Code reference

Clause 14 Schedule 11.1

Code related audit information

The ICP status of “Ready” must be managed by the distributor and indicates that:

- *the associated electrical installations are ready for connecting to the electricity supply (Clause 14(1)(a) of Schedule 11.1); or*
- *the ICP is ready for activation by a trader (Clause 14(1)(b) of Schedule 11.1)*

Before an ICP is given the “Ready” status in accordance with Clause 14(1) of Schedule 11.1, the distributor must:

- *identify the trader that has taken responsibility for the ICP (Clause 14(2)(a) of Schedule 11.1)*
- *ensure the ICP has a single price category (Clause 14(2)(b) of Schedule 11.1).*

Audit observation

Processes to manage the “Ready” status were reviewed.

The event detail report and registry list were reviewed to identify and check ICPs at the “Ready” status.

Audit commentary

All “Ready” ICPs have a single price category code and a trader is recorded.

Audit outcome

Compliant

4.10. Management of “distributor” status (Clause 16 Schedule 11.1)

Code reference

Clause 16 Schedule 11.1

Code related audit information

The ICP status of “distributor” must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.

Audit observation

The event detail report and registry list were reviewed to identify ICPs at “distributor” status.

Audit commentary

There are seven “SI” ICPs and they all have the shared unmetered load details recorded correctly.

Audit outcome

Compliant

4.11. Management of “decommissioned” status (Clause 20 Schedule 11.1)

Code reference

Clause 20 Schedule 11.1

Code related audit information

The ICP status of “decommissioned” must be managed by the distributor and indicates that the ICP is permanently removed from future switching and reconciliation processes (Clause 20(1) of Schedule 11.1).

Decommissioning only occurs when:

- *electrical installations associated with the ICP are physically removed (Clause 20(2)(a) of Schedule 11.1); or*
- *there is a change in the allocation of electrical loads between ICPs with the effect of making the ICP obsolete (Clause 20(2)(b) of Schedule 11.1); or*
- *in the case of a distributor-only ICP for an embedded network, the embedded network no longer exists (Clause 20(2)(c) of Schedule 11.1).*

Audit observation

The ICP decommissioning process was examined by a walk through. I also examined a sample of five of 170 ICPs at “ready for decommissioning”.

Audit commentary

Examination of the list file found 170 ICPs are at “ready for decommissioning” status. It is expected that retailers will provide a service order to Mainpower and once the necessary fieldwork had been conducted the registry will be updated to decommissioned.

Three of the five ICPs checked had field work completed, meters were removed and service mains were disconnected so the registry should be showing the ICPs as “decommissioned”. 59 of the 170 ICPs show the MEP as MNON, MREM or blank, indicating meters have been removed and they can probably be decommissioned. Mainpower checked the rest of the ICPs during the audit and has decommissioned all but 14. Requests for further information have been sent to the relevant retailers for these examples.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.11 With: Clause 20 Schedule 11.1 From: 01-Sep-17 To: 30-Apr-18	At least three ICPs decommissioned without the registry being updated. Potential impact: None Actual impact: None Audit history: None Controls: Weak Breach risk rating: 3
Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as weak because they are largely reactive. The audit risk rating is recorded as low because there is no impact on settlement or participants

Actions taken to resolve the issue	Completion date	Remedial action status
All issues identified during the audit have either been corrected or referred to retailers for further information.	14 June 2018	Cleared
Preventative actions taken to ensure no further issues will occur	Completion date	
We will develop a report to monitor ICPs at ready for decommissioning and allow us to take timely action.	Q3 2018	

4.12. Maintenance of price category codes (Clause 23 Schedule 11.1)

Code reference

Clause 23 Schedule 11.1

Code related audit information

The distributor must keep up to date the table in the registry of the price category codes that may be assigned to ICPs on each distributor's network by entering in the table any new price category codes.

Each entry must specify the date on which each price category code takes effect, which must not be earlier than two months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

I checked the Price Category Code table on the registry to confirm compliance.

Audit commentary

All price category codes were changed effective 01/04/18 and the registry was updated on 31/01/18, which achieves compliance with the two month requirement.

Audit outcome

Compliant

5. CREATION AND MAINTENANCE OF LOSS FACTORS

5.1. Updating table of loss category codes (Clause 21 Schedule 11.1)

Code reference

Clause 21 Schedule 11.1

Code related audit information

The distributor must keep the registry up to date with the loss category codes that may be assigned to ICPs on the distributor's network.

The distributor must specify the date on which each loss category code takes effect.

A loss category code takes effect on the specified date.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

No new loss factors have been created during the audit period, but some loss factors were changed.

Audit outcome

Compliant

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

Each loss category code must have a maximum of two loss factors per calendar month. Each loss factor must cover a range of trading periods within that month so that all trading periods have a single applicable loss factor.

If the distributor wishes to replace an existing loss factor on the table in the registry, the distributor must enter the replaced loss factor on the table in the registry.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

Some loss factors were changed, and two months' notice was provided.

Audit outcome

Compliant

6. CREATION AND MAINTENANCE OF NSPS (INCLUDING DECOMMISSIONING OF NSPS AND TRANSFER OF ICPS)

6.1. Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1)

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

If the distributor is creating or decommissioning an NSP that is an interconnection point between two local networks, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.

If the embedded network owner is creating or decommissioning an NSP that is an interconnection point between two embedded networks, the embedded network owner must give written notice to the reconciliation manager of the creation or decommissioning.

If the distributor is creating or decommissioning an NSP that is a point of connection between an embedded network and another network, the distributor must give written notice to the reconciliation manager of the creation or decommissioning.

If the distributor wishes to change the record in the registry of an ICP that is not recorded as being usually connected to an NSP in the distributor's network, so that the ICP is recorded as being usually connected to an NSP in the distributor's network (a "transfer"), the distributor must:

- give written notice to the reconciliation manager*
- give written notice to the Authority*
- give written notice to each affected reconciliation participant*
- comply with Schedule 11.2.*

Audit observation

The NSP table was reviewed.

Audit commentary

Mainpower has not created or decommissioned any NSPs during the audit period.

Audit outcome

Compliant

6.2. Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

If the distributor wishes to create an NSP or transfer an ICP as described above, the distributor must request that the reconciliation manager create a unique NSP identifier for the relevant NSP.

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between two local networks. In all other cases, the request must be made at least one month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table was reviewed.

Audit commentary

Mainpower has not created or decommissioned any NSPs during the audit period.

Audit outcome

Compliant

6.3. Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)

Code reference

Clause 24(1) and Clause 26(3) Schedule 11.1

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must give written notice to the reconciliation manager of the following:

- *if the NSP is to be located in a new balancing area, all relevant details necessary for the new balancing area to be created and notification that the NSP to be created is to be assigned to the new balancing area*
- *in all other cases, notification of the balancing area in which the NSP is located.*

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period.

Audit outcome

Compliant

6.4. Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must give notice to the reconciliation manager at least one month before the creation or transfer of:

- *the network on which the NSP will be located after the creation or transfer (Clause 26(4)(a))*
- *the ICP identifier for the ICP that connects the network and the embedded network (Clause 26(4)(b))*
- *the date on which the creation or transfer will take effect (Clause 26(4)(c)).*

Audit observation

The NSP table was reviewed.

Audit commentary

Mainpower has not created or decommissioned any NSPs during the audit period.

Audit outcome

Compliant

6.5. Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must give written notice to the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect and be given no later than three business days after the change takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period.

Audit outcome

Compliant

6.6. Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)

Code reference

Clause 27 Schedule 11.1

Code related audit information

If a transfer of an ICP results in an ICP becoming an NSP at which an embedded network connects to a network, or in an ICP becoming an NSP that is an interconnection point, in respect of the distributor's network, the distributor must give written notice to any trader trading at the ICP of the transfer at least one month before the transfer.

Audit observation

No ICPs have become NSPs during the audit period.

Audit commentary

No ICPs have become NSPs during the audit period.

Audit outcome

Compliant

6.7. Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

If the distributor wishes to transfer an ICP, the distributor must give written notice to the Authority in the prescribed form, no later than three business days before the transfer takes effect.

Audit observation

No ICP transfers have occurred during the audit period.

Audit commentary

No ICP transfers have occurred during the audit period.

Audit outcome

Compliant

6.8. Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3))

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

A network owner must, for each NSP that is not a point of connection to the grid for which it is responsible, ensure that:

- *there is one or more metering installations (Clause 10.25(1)(a)); and*
- *the electricity is conveyed and quantified in accordance with the Code (Clause 10.25(1)(b))*

For each NSP covered in 10.25(1) the network owner must, no later than 20 business days after a metering installation at the NSP is recertified advise the reconciliation manager of:

- *the reconciliation participant for the NSP*
- *the participant identifier of the metering equipment provider for the metering installation*
- *the certification expiry date of the metering installation.*

Audit observation

Mainpower does not have any responsibility for NSP metering.

Audit commentary

Mainpower does not have any responsibility for NSP metering.

Audit outcome

Compliant

6.9. Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2))

Code reference

Clause 10.25(2)

Code related audit information

If the network owner proposes the creation of a new NSP which is not a point of connection to the grid it must:

- *assume responsibility for being the metering equipment provider (Clause 10.25(2)(a)(i)); or*
- *contract with a metering equipment provider to be the MEP (Clause 10.25(2)(a)(ii)); and*
- *no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of:*
 - a) the reconciliation participant for the NSP (Clause 10.25(2)(b)(i)); and*
 - b) the MEP for the NSP (Clause 10.25(2)(b)(ii)); and*
 - c) no later than 20 business days after the data of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).*

Audit observation

Mainpower does not have any responsibility for NSP metering.

Audit commentary

Mainpower does not have any responsibility for NSP metering.

Audit outcome

Compliant

6.10. Obligations concerning change in network owner (Clause 29 Schedule 11.1)

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must give written notice to:

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the Authority (Clause 29(1)(c) of Schedule 11.1)*
- *every reconciliation participant who trades at an ICP connected to the acquired network or part of the network acquired (Clause 29(1)(d) of Schedule 11.1)*

at least one months' notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

The notification must specify the ICPs to be amended to reflect the acquisition and the effective date of the acquisition (Clause 29(3) of Schedule 11.1).

Audit observation

Mainpower has not acquired any networks.

Audit commentary

Mainpower has not acquired any networks.

Audit outcome

Compliant

6.11. Change of MEP for embedded network gate meter (Clause 10.22(1)(b))

Code reference

Clause 10.22(1)(b)

Code related audit information

If the MEP for an ICP which is also an NSP changes the participant responsible for the provision of the metering installation under Clause 10.25, the participant must advise the reconciliation manager and the gaining MEP.

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Mainpower is not responsible for embedded network gate meters; compliance was not assessed.

Audit outcome

Compliant

6.12. Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)

Code reference

Clauses 5 and 8 Schedule 11.2

Code related audit information

The distributor must give the Authority confirmation that it has received written consent to the proposed transfer from:

- *the distributor whose network is associated with the NSP to which the ICP is recorded as being connected immediately before the notification (unless the notification relates to the creation of an embedded network) (Clause 5(a) of Schedule 11.2)*
- *every trader trading at an ICP being supplied from the NSP to which the notification relates (Clause 5(b) of Schedule 11.2).*

The notification must include any information requested by the Authority (Clause 8 of Schedule 11.2).

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Mainpower is not responsible for embedded network gate meters; compliance was not assessed.

Audit outcome

Compliant

6.13. Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)

Code reference

Clause 6 Schedule 11.2

Code related audit information

If the notification relates to an embedded network, it must relate to every ICP on the embedded network.

Audit observation

The NSP supply point table was reviewed.

Audit commentary

Mainpower has not initiated the transfer of any ICPs during the audit period; compliance was not assessed.

Audit outcome

Compliant

7. MAINTENANCE OF SHARED UNMETERED LOAD

7.1. Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))

Code reference

Clause 11.14(2) and (4)

Code related audit information

The distributor must give written notice to the registry manager and each trader responsible for the ICPs across which the unmetered load is shared of the ICP identifiers of those ICPs.

A distributor who receives notification from a trader relating to a change under Clause 11.14(3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared of the addition or omission of the ICP.

Audit observation

The list file contains seven shared unmetered load ICPs, which were all checked for accuracy.

Audit commentary

There were no changes during the audit period.

The “child” ICPs do not have any reference to the parent ICP and the registry data dictionary indicates that the “shared ICP list” field should contain the parent ICP. The data dictionary text is shown below:

A list maintained by Distributors. For ICPs across which unmetered load is shared (Shared Unmetered ICPs see section 1.5), the list will contain the ICP identifiers of each ICP separated by a space. For Standard ICPs with a relationship to Shared Unmetered ICPs (across which unmetered load is shared), this will contain the ICP Identifier of the Shared Unmetered ICP.

I recommend Mainpower populates the shared ICP list field for child ICPs with the parent ICP identifier.

Recommendation	Description	Audited party comment	Remedial action
Regarding Clause 11.14(2) and (4)	Populate the shared ICP list field for child ICPs with the parent ICP identifier.	We will amend our system and the registry data to reflect the parent-child relationship by Q4 2018.	Identified

Audit outcome

Compliant

7.2. Changes to shared unmetered load (Clause 11.14(5))

Code reference

Clause 11.14(5)

Code related audit information

If the distributor becomes aware of a change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.

Audit observation

There were no changes during the audit period.

Audit commentary

There were no changes during the audit period.

Audit outcome

Compliant

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

Audit observation

Mainpower conducts an annual review of loss factors. I checked the results of the most recent review.

Audit commentary

The annual review has resulted in some adjustments in recent years. The review process and updating process is confirmed as compliant.

Audit outcome

Compliant

CONCLUSION

The audit found eight non-compliances and makes two recommendations.

Most of the issues raised relate to incorrect or late registry updates.

The two most critical issues from the previous audit were the incorrect recording of the dedicated status and GXP inaccuracy. The dedicated flag issue is now resolved but further work is required to ensure GXPs are accurately recorded. Most of the other issues identified can be remedied by improving the controls, specifically with discrepancy reporting to identify potential errors in a shorter timeframe.

PARTICIPANT RESPONSE

MainPower agrees with the findings of the audit report. We have listed the specific actions that we will take in the appropriate sections.